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g) an additional detector device for detecting fluorescence radiation generated due to excitation of one or more molecules, molecular complexes or molecular fragments, and

h) a correlator unit which is connected with the two detector devices.

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155. (Amended) The device according to claim ²¹~~154~~, further comprising

- i) a T-shaped support with a first supporting arm and a second supporting arm connected therewith and running perpendicular to the first supporting arm,
- j) two holding devices arranged at the ends at the faces of the second supporting arm for axial guiding and holding of optical elements for the two laser beams and the two fluorescence radiations wherein the focused laser beams impinge on a glass slide bearing the measuring volume and being separably arranged between the two ends at the faces of the second supporting arm and held by them,

G₂
(cont.)

wherein the two holding devices can be moved synchronously relative to their respective ends at the faces of the second supporting arm in a direction of a longitudinal extension thereof, the two holding devices are extended in a direction of extension of the first supporting arm, and the two laser beams can be deflected by deflecting mirrors through optical openings out of an inside of the first supporting arm onto the optical elements for the laser beams held at the holding devices.

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156. (Amended) The device according to claim ²¹~~154~~, further comprising

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- i) a T-shaped support with a first supporting arm and a second supporting arm connected therewith and running perpendicular to the first supporting arm,
- j) two holding devices arranged at the ends at the faces of the second supporting arm for axial guiding and holding of optical elements for the two laser beams and the two fluorescence radiations wherein the focused laser beams impinge on a glass slide bearing the measuring volume and being separably arranged between the two ends at the faces of the second supporting arm and held by them,

wherein the two holding devices can be moved synchronously relative to their respective ends at the faces of the second supporting arm in a direction of a longitudinal extension thereof, the two holding devices are extended in a direction of extension of the first supporting arm, and the two laser beams can be deflected by semitransparent mirrors through optical openings out of an inside of the first supporting arm onto the optical elements for the laser beams held at the holding devices.

6₂
(cont.)
²⁴
~~157.~~ (Amended) The device according to claim ²¹~~154~~ wherein the focused laser beams are being separably arranged halfway between the two ends at the faces of the second supporting arm.

²⁵
~~158.~~ (Amended) The device according to claim ²¹~~154~~ wherein the optical elements for the laser beams are arranged at the inner sides, facing each other, of the two holding devices and the optical elements for the fluorescence radiation are arranged at the outer sides, facing away from each other, of the two holding devices.

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²⁶
G₂ (cond.) ²¹
159. (Amended) The device according to claim ²¹154 wherein one of the focusing objective lenses can be positioned by an adjusting element for compensation of an offset of the focuses of said focusing objective lenses.

²⁹ 162. (Amended) The device according to claim ²⁸161 comprising computer assisted means for processing or evaluating the measuring signal.

G₃ ¹¹ 163. (Amended) The device according to claim ⁷126 wherein the appliances for prefocusing are provided with a lens and an array corresponding to microscope optics wherein a collimated laser beam is focused on the image plane B₁ by a lens and on the image plane B₂ (first image) by said array.

G₄ ⁷⁸ 168. (Amended) The device according to claim ⁶⁰120 wherein one or more detector elements are placed in the image plane in the form of a detector array.

³⁴ 170. (Amended) The device according to claim ¹119 wherein the laser beam generation device comprises a continuous laser emitting light of wavelengths > 200 nm.

G₅ ³⁵ 171. (Amended) The device according to claim ³⁴170 wherein the laser is an argon, krypton, helium-neon, or helium-cadmium laser.

³⁶ 172. (Amended) The device according to claim ¹119 wherein the laser beam generation device comprises a laser pulsed with high frequency of ≥ 20 MHz with a power of ≥ 0.5 mW.

G₆ ⁴⁴ 180. (Amended) The device according to claim ¹119, further comprising an electrophoretic device with at least one electrophoresis cell having at least one opening for charging/discharging of

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G₆
(cont.)

a sample to be analyzed into the measuring volume or of a washing solution, a wall electrode, a ring electrode, a Neher capillary, an electrode at the tip of the capillary and a droplet outlet.

G₇

⁴⁹185. (Amended) The device according to claim ⁴⁴180 further comprising a sheet for receiving samples, said sheet having specific binding properties for molecules due to molecular derivatization.

G₈

⁵²188. (Amended) The device according to claim ⁴⁷185, comprising sheets having different molecular structures of different binding specificity as ligands in specific positions.

⁵³189. (Amended) The device according to claim ⁴⁴180 wherein the sample comprising one or more molecules, molecular complexes or molecular fragments to be detected is fixed on a sample receiving device which is two- or three-dimensionally controllable.

⁵⁴190. (Amended) The device according to claim ⁵³189 wherein the sample receiving device comprises two- or three-dimensional piezo drives to fix the sample in defined space coordinates.

⁵⁷193. (Amended) The device according to claim ¹119 wherein the detector device comprises a multiarray detector.

G₉ ⁵⁸194. (Amended) The device according to claim ¹119 comprising an optical system for the parallel illumination of several measuring volumes.

¹¹²195. (Amended) The device according to claim ¹¹¹243 wherein the focused laser beams are being separably arranged halfway between the two ends at the faces of the second supporting arm.

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¹¹³

196. (Amended) The device according to claim ¹¹¹243 wherein the optical elements for the laser beams are arranged at the inner sides, facing each other, of the two holding devices and the optical elements for the fluorescence radiation are arranged at the outer sides, facing away from each other, of the two holding devices.

G₉¹¹⁴

197. (Amended) The device according to claim ¹¹¹243 wherein one of the focusing objective lenses can be positioned by an adjusting element for compensation of an offset of the focuses of said focusing objective lenses.

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200. (Amended) The device according to claim ⁷⁹199 comprising computer assisted means for processing or evaluating the measuring signal.

G₁₀⁷⁰

201. (Amended) The device according to claim ⁶⁶144 wherein the appliances for prefocusing are provided with a lens and an array corresponding to microscope optics wherein a collimated laser beam is focused on the image plane B₁ by a lens and on the image plane B₂ (first image) by said array.

⁸⁵

208. (Amended) The device according to claim ⁶⁰120 wherein the laser beam generation device comprises a continuous laser emitting light of wavelengths > 200 nm.

G₁₁⁸⁶

209. (Amended) The device according to claim ⁸⁵208 wherein the laser is an argon, krypton, helium-neon, or helium-cadmium laser.

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210. (Amended) The device according to claim ⁶⁰120 wherein the laser beam generation device comprises a laser pulsed with high frequency of ≥ 20 MHz with a power of ≥ 0.5 mW.

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G₁₂ 95 218. (Amended) The device according to claim 120, further comprising an electrophoretic device with at least one electrophoresis cell having at least one opening for charging/discharging of a sample to be analyzed into the measuring volume or of a washing solution, a wall electrode, a ring electrode, a Neher capillary, an electrode at the tip of the capillary and a droplet outlet.

G₁₃ 100 223. (Amended) The device according to claim 218⁹⁵ further comprising a sheet for receiving samples having specific binding properties for molecules due to molecular derivatization.

103 226. (Amended) The device according to claim 223¹⁰⁰ comprising sheets having different molecular structures of different binding specificity as ligands in specific positions.

G₁₄ 104 227. (Amended) The device according to claim 218⁹⁵ wherein the sample comprising one or more molecules, molecular complexes or molecular fragments to be detected is fixed on a sample receiving device which is two- or three-dimensionally controllable.

105 228. (Amended) The device according to claim 227¹⁰⁴ wherein the sample comprises two- or three-dimensional piezo drives to fix the sample in defined space coordinates.

G₁₅ 108 231. (Amended) The device according to claim 120⁶⁰ wherein the detector device comprises a multiarray detector.

109 232. (Amended) The device according to claim 120⁶⁰ comprising an optical system for the parallel illumination of several measuring volumes.

[Add the following claim: